

Remarks

Claims 1-10, 12-15, 17-19, 26-30, 34-54, 70-74 are pending in the present application after entry of this amendment. Claims 11, 16, 20-25, 31-33, 55-69 and 75-81 have been canceled. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 26 and 27 have been rejected under 35 U.S.C. § 101. Applicant submits that Claim 26 has been amended to recited “hardware” apparatus as suggested in the Office Action. Applicant therefore requests that the rejection of Claims 26 and 27 be withdrawn.

Turning to the remaining rejections, Claims 75 and 78-81 are rejected under 35 USC § 102(e) as being anticipated by Yamamoto (US 2005/0198202). Claims 1-10, 12-25, 51-55, 59-61, 64-69 and 77 are rejected under 35 USC § 103(a) as being unpatentable over Jain in view of Goede and further in view of Yamamoto. Claims 26, 27, 56, and 70-74 are rejected under 35 USC § 103(a) as being unpatentable over Jain in view of Yamamoto. Claims 28-35, 37, 38, 40-45, 48-50, 57, 58, 62 and 76 are rejected under 35 USC § 103(a) as being unpatentable over Yamamoto in view of Goede. Claims 36 and 39 are rejected under 35 USC § 103(a) as being unpatentable over Yamamoto in view of Goede and further in view of Jain. Claims 46 and 47 are rejected under 35 USC § 103(a) as being unpatentable over Yamamoto in view of Jain. Claim 63 is rejected under 35 USC § 103(a) as being unpatentable over Goede in view of Yamamoto.

Claims 75 and 78-81 have been canceled. Therefore, Applicant requests that the rejection of Claims 75 and 78-81 be withdrawn.

The rejection of Claims 1-10, 12-25, 51-55, 59-61, 64-69 and 77 as being unpatentable over Jain in view of Goede and further in view of Yamamoto is respectfully traversed.

Claim 1, as amended, recites a computer-accessible medium that includes “a translator” that is operable to receive a non-procedural image annotation template to enable DICOM

information to be embedded on a medical image, the translator being operable to translate the non-procedural image annotation template to image annotation source code that is executable by an medical image viewer; and a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable adapted to be installed on a medical imaging system to enable the medical image including the embedded text to be viewed on the medical image viewer.”

Initially, the Office contends that the references teach each of the elements in the independent claims, particularly with respect to the claim recitations in Claim. For example, the Office Action asserts that Jain describes a translator that receives a non-procedural image annotation template and translates the image annotation template to image annotation source code. However, the Office Action fails to explicitly state or cite to any portion of the cited references that teach the translator recited in Claim 1. Moreover, the Office Action fails to explicitly state which elements in the cited art, the Examiner is alleging are equivalent to the claim elements translator, image annotation template, and source code.

Claim 1 further recites a compiler that receives the image annotation source code and then compiles the source code into an image annotation executable. However, while the Office Action admits that Jain and Goede both fail to describe a compiler that receives an image annotation template to enable text to be embedded on an image, the Office Action nonetheless asserts that Jain does describe the translator recited in Claim 1 without providing any detailed citations to Jain to support this rejection. Applicant therefore requests the Office to specifically identify the teachings as is required to afford the Applicant a full and fair opportunity to respond to the rejection.

Turning to the rejections, the Office Action admits that Jain does not describe or suggest a translator that is “operable to receive a non-procedural image annotation template to enable text to be embedded on a medical image.” To support this rejection, the Office Action states that Jain describes in Figure 1, an XML to Java Translation Tool 108. As explained by Jain, the

translation tool 108 is used to convert an XML DTD (Document Type Definition file) to JAVA classes 110 and stores each of these classes 110 in a respective file 112. As described by Jain, “[a] Document Type Definition file (“DTD”) associated with an XML document defines how the mark up tags within the document should be interpreted by the application presenting the document.” (Paragraph 3) As known in the art, a “mark up tag” is a fundamental characteristic of HTML. More specifically, a mark up tag is a command placed between wickets or angle brackets in the mark up language. Mark up tags are NOT revealed by a WEB browser but are invisible. As such, the HTML mark up tags described by Jain are NOT annotations, nor is there any reasonable rationale for using the known mark up tags as annotations placed on an image since markup tags are NOT viewable on the WEB page. As discussed above, the Office Action admits that Jain does not describe a translator that is “operable to receive a non-procedural image annotation template to enable text to be embedded on a medical image. It necessarily follows then that Jain can NOT describe a translator being operable to translate the non-procedural image annotation template to image annotation source code that is executable by an medical image viewer. Accordingly, Jain does not describe the translator recited in Claim 1.

The Office Action then asserts that Jain does describe “a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable.” Applicant disagrees. Because, Jain does not describe a translator that translates an image annotation template into source code, Jain can NOT describe a compiler the receives the image annotation source code and compiles it into an image annotation executable.

Regarding Goede, the Office Action admits that Goede, nor Jain, describe a translator being operable to translate the non-procedural image annotation template to image annotation source code. To make up for the deficiencies of Jain, the Office Action asserts that Goede describes a method and system for visually annotating an image. Specifically, the Office Action states that a deductor taught by Goede may be used to visually annotate an image. However, the system taught by Goede, and admitted in the Office Action, utilizes structured vector

representations. Specifically, Goede describes that annotations are stored alongside image information. Moreover, Goede describes that “[a]ll the problems associated with the use of raster based images can either be eliminated or reduced substantially by not flattening the annotations to the image by the use of storing the annotations as vector based graphics.” Goede clearly describes a method for storing the annotations with an image. For example, Goede describes that by “storing metadata and vector-based annotations as text inside the image file, this information can more easily “travel” with the image information.” Applicant submits that the vectors described by Goede are NOT stored on a template. Moreover, the vectors are NOT translated into image annotation source code. Moreover, the vectors are not compiled to form an image annotation executable. Applicant submits that because Goede utilizes vector based graphics that are stored alongside image, there is no rationale reason for Goede to modify source code to annotate an image. As such, Goede fails to describe any of the elements recited in Claim 1. Specifically, Goede fails to describe a translator to translate an image annotation template into source code. Goede also fails to describe a compiler that compiles the image annotation source code into an executable file. Nor does the Office Action cite to a single example within Goede to support the assertion of a translator or a compiler. In contrast, the Office Action merely provides excerpts from Goede that are out of context with respect to the actual teachings of Goede. Moreover, there is no rationale reason to modify Goede to perform the functions asserted in the Office Action.

To make up for the deficiencies of both Jain and Goede, the Office Action asserts that Yamamoto teaches “a translator being operable to translate the non-procedural image annotation template to image annotation source code.” Applicant disagrees. As discussed above, the Office again fails to explicitly state which elements in Yamamoto the Office is asserting represents the translator, the image annotation template, and the source code. Applicant submits that in any future correspondence that is not a Notice of Allowance, the Office explicitly state which elements in Yamamoto are asserted to be equivalent to the elements recited in Claim 1. In this case, the Office does not provide such equivalent elements but merely states that “although the

exact nomenclature isn't used, the functionality is very much the same as Applicants claimed invention.” Applicant submits this statement is not sufficient to support the rejection of the pending claims.

Yamamoto describes a technique that enables a server to provide a plurality of client computers with annotation functions, thereby to allow the users of the client computers to communicate with each other using annotations. Specifically, Yamamoto describes that the annotation functions are transmitted “in a format viewable in the Web browser (e.g., a Hyper-Text Mark-up Language (HTML) file); b) annotation information representing annotations in a format viewable in the Web browser (e.g., an HTML file); and c) a script for allocating the annotations to the file (document) (e.g., a JavaScript).” (Yamamoto, paragraph 70). Yamamoto clearly describes that to enable the requesting computer 50 to utilize the annotation functions the server transmits the annotation functions in an HTML format. The annotation functions are not entered into a template. Yamamoto does NOT translate a template including the annotations or the annotation objects themselves into source code. Therefore, it necessarily follows that Yamamoto does not compile source code representing an image annotation template. Therefore, Claim 1 is submitted to be patentable over Yamamoto.

Claims 8 and 13 are also considered to be allowable for at least the reasons stated above with respect to Claim 1. Claims 2-7, 9-10, 12, 14-15, and 17-19 depend from Claims 1, 8, and 13, respectively are therefore also submitted to be patentable over Jain in view of Goede and further in view of Yamamoto for at least the reasons stated above with respect to Claim 1. Moreover, there may be additional reasons that the pending claims are patentable over Jain in view of Goede and further in view of Yamamoto.

Regarding Claim 18, the Office Action asserts that ““DICOM is a type of DOM, and Jain discloses such at/on Fig. 6 #644.” Applicant disagrees with this assertion. As stated in the Office Action the term “DOM” as used by Jain is an acronym for the term “Document Object Module”. A document object module (DOM) is not a DICOM element as recited in Claim 18.

A DOM is a specification for a programming interface that allows programs and scripts to update the content of HTML and XML documents. As is known in the art, DOM is used specifically for XML and HTML documents because DOM converts the document in memory into a hierarchical node tree that looks like a database record. The node tree allows updating in a similar manner to database updating, making data exchange between XML documents and databases more straightforward. Without DOM turning the document into an object model and handling the updating.

In contrast, DICOM (Digital Imaging and Communications in Medicine) is a standard for handling, storing, printing, and transmitting information in medical imaging. It includes a file format definition and a network communications protocol. The communication protocol is an application protocol that uses TCP/IP to communicate between systems. DICOM files can be exchanged between two entities that are capable of receiving image and patient data in DICOM format. Applicant again submits that DOM is not DICOM. Moreover, Jain fails to provide a single instance wherein the DICOM is used to perform any functions regarding the XML documents. Specifically, the Office Action fails to provide a single citation to any of the cited art to support the Examiner's conclusion that DICOM is a type of DOM.

Moreover, by again asserting that "DICOM is a type of DOM", the Examiner appears to again be taking Official Notice regarding the use of the term "DOM". If the Examiner is taking Official Notice, for example, of facts in the Examiner's personal knowledge rather than the prior art, Applicants respectfully traverse the Examiner's assertions. Under MPEP § 2144.03, the Examiner is now obligated to cite references or other documentary evidence in support of the Examiner's assertions. Alternatively, if the Examiner's assertions are based on facts within the personal knowledge of the Examiner, the facts must be supported by an affidavit from the Examiner.

Claim 51 recites a method to generate and view an annotated medical image, from an image annotation object having an image and an annotation presentation description. The

method includes “receiving the annotation presentation description and the image annotation object, the image annotation object containing text, wherein the annotation presentation description comprises an annotation presentation description that is compiled from a non-procedural image annotation template and has instructions that are native to a processor that is operably coupled to the computer accessible medium; and invoking the native instructions contained in the annotation presentation description and using text from the image annotation object, to generate and view the annotated medical image that is annotated with the text from the image annotation object.”

As discussed above, none of the cited art describes an annotation presentation description that is compiled from a non-procedural image annotation template and has instructions that are native to a processor that is operably coupled to the computer accessible medium. Therefore, Applicant submits that Claim 51 is in condition for allowance.

Claims 52-54 depend from Claim 51 and are therefore also submitted to be patentable over Jain in view of Goede and further in view of Yamamoto for at least the reasons stated above with respect to Claim 51. Moreover, there may be additional reasons that the pending claims are patentable over Jain in view of Goede and further in view of Yamamoto.

Claims 59-61, 64-69 and 77 have been canceled. Therefore, for at least the reasons stated above, Applicant requests the rejection of Claims 1-10, 12-25, 51-55, 59-61, 64-69 and 77 be withdrawn.

The rejection of Claims 26, 27, 56, and 70-74 as being unpatentable over Jain in view of Yamamoto is respectfully traversed.

Applicant submits that Claim 26, as amended recites “hardware apparatus for translating the non-procedural image annotation template to image annotation source code that is executable by an medical image viewer.” As discussed above with respect to Claim 1, none of the cited art describes hardware apparatus for translating the non-procedural image annotation template to

image annotation source code that is executable by an medical image viewer. For at least this reason, Claim 26 is submitted to be in condition for allowance.

Additionally, Claim 26 recites in part an “apparatus operable to fill hash tables representing DICOM elements of high-level language source code.” As discussed above, Jain does not describe a medical imaging system, nor does Jain describe “DICOM elements”. In contrast Jain describes DOM which is NOT DICOM.

To support this rejection, the Office Action asserts on Page 52 that Jain describes these elements in Figure 6, item #636. Applicant disagrees. Jain is not directed to a medical imaging system. Nor does Jain describe or suggest using DICOM. Moreover, nothing in Jain in Figure 6 supports the assertion that Jain uses DICOM elements. In contrast, Jain describes “[i]n step 636, XML_to_Java translation tool 108 generates constructors of sections 424A and 428A.” Additionally, as discussed above, the Office Action asserts that ““DICOM is a type of DOM, and Jain discloses such at/on Fig. 6 #644.” Applicant disagrees with this assertion. Moreover, Jain fails to describe a single instance wherein the term “DOM” is used to support this assertion in the Office Action. Moreover, Yamamoto does not make up for this deficiency. Yamamoto does not describe medical images in general nor does Yamamoto describe DICOM images specifically. For at least the reasons cited above, Claim 26 is patentable over the cited art.

Moreover, the combination of Jain and Yamamoto do not describe or suggest a non-procedural image annotation template.

With regards to Jain, Jain describes “translating an XML document to an object in an object-oriented language so that content of the XML document can be programmatically accessed.” As discussed above, Jain does NOT describe “a non-procedural image annotation template, the translator being operable to translate the non-procedural image annotation template to image annotation source code; and a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable.”

To support this rejection the Office Action asserts that Jain describes “a Document Type Definition file (DTD) associated with an XML document defines how mark up tags within the document should be interpreted by the application presenting the document.” As best understood by the Applicant, the Office Action asserts that the DTD file described by Jain is the same as the non-procedural image annotation template recited in the pending claims. Applicant disagrees.

As described by Jain, “[a] Document Type Definition file (“DTD”) associated with an XML document defines how the mark up tags within the document should be interpreted by the application presenting the document.” (Paragraph 3) As known in the art, a “mark up tag” is a fundamental characteristic of HTML. More specifically, a mark up tag is a command placed between wickets or angle brackets in the mark up language. Mark up tags are not revealed by a WEB browser but are invisible. As such, the HTML mark up tags described by Jain are NOT annotations, nor is there any reasonable rationale for using the known mark up tags as annotations on an image since markup tags are not shown on the WEB page. Finally, Jain does not describe or suggest that “a translator that is operable to receive a non-procedural image annotation template to enable text to be embedded on a medical image.” Nor does Jain describe or suggest “a compiler operably coupled to the translator, the compiler being operable to receive the image annotation source code and to compile the source code into an image annotation executable adapted to be installed on a medical imaging system to enable the medical image including the embedded text to be viewed.” Moreover, Yamamoto does not make up for the deficiencies of Jain. Therefore, Applicant submits that Claims 26, 27 and 70-74 are patentable over Jain in view of Yamamoto. Claim 56 has been canceled.

The rejection of Claims 28-35, 37, 38, 40-45, 48-50, 57, 58, 62 and 76 as being unpatentable over Yamamoto in view of Goede is respectfully traversed.

Claims 28-30 have been written in dependent form to depend from Claim 1. Claim 1 is submitted to be allowable. Therefore, Claims 28-30 are submitted to be allowable. Claims 31-33 have been canceled.

Claim 34 recites, in part, a computer-accessible medium that includes “a translator operable to translate an image annotation template into image annotation source code; a compiler operable to translate the image annotation source code into an image annotation executable”. Neither Yamamoto or Goede, alone or in combination, describe the translator recited in Claim 34. Therefore, Applicant submits that Claim 34 is in condition for allowance. Claims 35, 37, 38, and 40-44 depend from Claim 34 and are therefore also considered to be in condition for allowance.

Claim 45 is also considered to be in condition for allowance for at least the reasons stated above with respect to Claim 52. Claims 48-50 depend from Claim 45 and are therefore also considered to be in condition for allowance. Claims 57, 58, 62 and 76 have been canceled. For at least the reasons stated above, Applicant requests that the rejection of Claims 28-35, 37, 38, 40-45, 48-50, 57, 58, 62 and 76 be withdrawn.

The rejection of Claims 36 and 39 as being unpatentable over Yamamoto in view of Goede and further in view of Jain is respectfully traversed. As stated in the Office Action, neither Yamamoto nor Goede teach an “image annotation executable further comprises an image annotation executable that is compiled from a non-procedural image annotation template.” As discussed above, Jain does not make up for this deficiency. Moreover, Claims 36 and 39 depend from Claim 34 which is considered to be allowable for the reasons stated above. Therefore, Applicant requests that the rejection of Claims 36 and 39 be withdrawn.

The rejection of Claims 46 and 47 as being unpatentable over Yamamoto in view of Jain is respectfully traversed. Claims 46 and 47 depend from Claim 45 which is considered to be allowable for the reasons stated above.

The rejection of Claim 63 as being unpatentable over Goede in view of Yamamoto is respectfully traversed. Claim 63 depends from Claim 62 which is considered to be allowable for the reasons stated above.

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In view of the foregoing comments, it is respectfully submitted that the prior art fails to teach or suggest the claimed invention. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,

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